

# THE TOTAL QUALITY MANAGEMENT ON TEACHER PROFESSIONAL DEVELOPMENT IN SECONDARY SCHOOLS IN GHARBIA GOVERNORATE OF EGYPT

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## Abstract

*The purpose of this study to determine the total quality management on teacher professional development in secondary schools in Gharbia Governorate in Egypt. The study involved 66 respondents (47.4 % male & 52.6 % female) secondary school teachers'. The questionnaire consists of both Arabic language as well as English language. It consists of 28 items which includes Create Constancy of Purpose for Improvement (3 items), Adopt the New Philosophy (4 items), Improve constantly (4 items), Institute Training on The Job (9 items), Institute leadership (4 items) and Drive out Fear (4 items) subscales. This instrument was developed to assess the relationship between total quality management on teacher professional development in secondary schools. Data were analysed using frequency, percentage, independent t-test, ANOVA and Pearson Correlation test. The study found that no difference between gender and experiences on professional development. In additional, it was found that out of six dimension of Create Constancy of Purpose for Improvement, Adopt the New Philosophy, improve constantly, Institute Training on The Job, Institute leadership and Drive out Fear have positive relationship on teachers' professional development. Finally, based on the finding of this study, I wish to suggest that for an improvement future researcher should carry out similar study not only in Gharbia state but also generally in Egypt. Besides, it recommended that should be encourage teachers of secondary school to attend training course and learn recent research and educational studies by providing financial and moral incentives. On the other hand, seminars could be held for high school teachers in order to improve their attitudes and perspectives towards professional development.*

**Keywords:** Total Quality Management, Teacher Professional Development, Secondary School, Gharbia Governorate.

## 1. Background of the Study

Total quality management in education is the role of the school management, teachers to become effective in the schooling system in teaching and learning process (Yildiz, 2006). Total Quality Management (TQM) is an idea and set of guiding principles and a knowledge that shows the fundament of a continuously improving school and other institution (McCulloch, 2013). Total Quality Management (TQM) is the adoption of quantitative methods and human resources to enhance both services supplied and material to the institutions (Capezio & Morehouse, 2013). It involves standard school structure with well-furnished classrooms, good laboratories, update the library, instructional materials and devoted staff and conducive environment that makes teaching and learning very effective in schooling system (Ozevren, 2000).

In another word, Total Quality Management (TQM) in education has a significant role towards enhancing the standard of education in providing skilled and professional teachers (Bostan, 2005). It is unanimously accepted that the excellence of education of any state determines by the quality of its citizens' education. The latter is mostly resolute by their educational system of the nation, which in turn is decided by the quality of teachers (Aydin & Senturk, 2007). Thus, the real dynamic forced of education is the teachers. TQM embrace changes of teaching tradition, that the teachers require a conducive environment with instructional facilities and resources to discharge their duties in a systematic manner (Ozevren, 2000).

In Egypt, the establishment of secondary education and its role in promoting total quality management and teacher professional development requires to fulfill with a huge number of teachers through full-scoped professional development. For the reason that, a lot of

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college graduates from colleges of education are engaged every year by the government schools in Egypt but most of these graduates newly hired are not prepared for their professional careers (Galal, 2002; Harmer, 2007).

In light of this, the Middle East and North Africa Organization for Economic Co-operation and Development (MENA-OECD) in 2010 hinted that no teaching certification or special teacher qualification is required for a teacher in Egypt but university degree in relation to their specializations or the subject they taught in the school.

Consequently, professional development of teachers becomes a serious component in creating of teachers' skilled and ability profession (Bowman, Donovan, & Burns, 2000; Emery, 2012) that eventually might provide students with a high-quality education. Students require teachers with skilled and competency who are capacitated for preparing students to be life-long and self-directed learners (OECD, 2005).

However, the in-service training was also considered as a threat affecting teachers in this area on their professional development. Nevertheless, the in-service teachers characteristically have relied on their definite experience on the job and in their opinion of their colleagues for improving their personality, however, the practical reality remains challenging. Megahed (2002) pointed out that the MOE fails to provide a suitable system for teacher professional development programs. Also in Egypt, the failure of the government to establish a sound total quality management framework for effective enhancement in secondary school education is among the banes that serve a deterrent to the development of secondary education in the country.

Moreover, the teacher professional development is the official in-service training to improve the content knowledge and informative skills of teachers are broadly regarded as a significant means of improving and upgrading teaching and learning process. However, there is countless intervention from Ministry of Education in Egypt towards involving teacher professional development in their program, but, there are still some obstacles that are disturbing the teachers' professional development in secondary schools of the country. This research tends to examine the total quality management on teacher professional development in secondary schools in Gharbia Governorate in Egypt.

Several studies have shown the relevance of adopting teacher professional development to improve a range of training encounters in the teaching career (Kagoda & Ezati, 2014). Moreover, in the context of total quality management, it is observed that secondary schools in Gharbia Governorate over the years have faced some hurdles such as inadequate facilities for effective teaching and learning, lack of maintenance of existing structures, absence of commitment from the teachers, weak teamwork, poor communication system, paucity of funds, weak performance of students especially in external examinations. These factors have attributed some privilege for parents to enroll their children in private international schools for positive educational outcomes.

Nevertheless, one possible suggestion for improving this quality of education hinged on the application of the ideals of total quality management in secondary school administration in Gharbia Governorate. In the context of teacher professional development in Gharbia secondary schools, there are shortcoming as it appears not to be a priority list on the agenda in the Ministry of Education in Gharbia. The MOE only organize a training when the need arises, within a few days with less impact on teachers. As a result, teachers are left to plan for their own TPD. Society expects the teachers to carry out the role of developing their learners in terms of the physical, intellectual, social and moral well-being as parts of teacher's obligations in a teaching career. This implies that teachers require adequate professional training for all around developing in the teaching profession. Recently, teachers in Gharbia Government secondary schools have not conceptualized professional development in its varied nature and very few of these teachers have been motivated to attend professional development accomplishments excluding promotion from one level to a new level. The

question basically to determine the total quality management on teacher professional development in secondary school administration, teaching and learning in Gharbia Governorate. Besides, most studies on total quality management and teacher professional development are limited in the literature concerning Gharbia Governorate secondary school and this present study will fill the gap in determining the level of total quality management on teacher professional development in Egypt and Gharbia Governorate in particular.

### **1.1. Research Objectives**

The main research objective of this study is to determine the total quality management on teacher professional development in secondary schools in Gharbia Governorate in Egypt. In the context, the specific objectives are:

1. To identify the level of total quality management and teacher professional development in Gharbia Governorate in Egypt.
2. To determine gender and experiences differences in total quality management and teacher
3. To examine the relationship among Create Constancy of Purpose for Improvement, Adopt the New Philosophy, Improve Constantly, Institute Training on The Job, Institute leadership, Drive out Fear toward total quality management.

### **1.2. Research Questions**

These are the research questions for the study:

1. Is there any level of total quality management and teacher professional development in Gharbia Governorate?
2. Is there gender and experiences differences in total quality management and teacher professional development?
3. Is there a relationship among Create Constancy of Purpose for Improvement, Adopt the New Philosophy, Improve Constantly, Institute Training on The Job, Institute leadership, Drive out Fear toward total quality management?

### **1.3. Research Hypotheses**

The following research hypotheses guided the study.

**H<sub>01</sub>**. There is no significant difference between genders on teacher professional development in secondary schools in Gharbia Governorate in Egypt.

**H<sub>02</sub>**. There is no significant difference between experience on teacher professional development in secondary schools in Gharbia Governorate in Egypt.

**H<sub>03</sub>**. There is no relationship between Create Constancy of Purpose for Improvement and teacher professional development in Gharbia Governorate in Egypt.

**H<sub>04</sub>**. There is no relationship between Adopt the New Philosophy and teacher professional development in Gharbia Governorate in Egypt.

**H<sub>05</sub>**. There is no relationship between Improve Constantly and teacher professional development in Gharbia Governorate in Egypt.

**H<sub>06</sub>**. There is no relationship between Institute Training on The Job and teacher professional development in Gharbia Governorate in Egypt.

**H<sub>07</sub>**. There is no relationship between Institute leadership and teacher professional development in Gharbia Governorate in Egypt.

**H<sub>08</sub>**. There is no relationship between Drive out Fear and teacher professional development in Gharbia Governorate in Egypt.

#### **1.4. Novelty**

The study is intended to offer a significant contribution in the areas of filling research gap, contribution to the body of knowledge and assisting the Tanta state ministry of education in implementing total quality management for teacher professional development in the state. The findings of the study would also assist the educational stakeholders and policy makers in Egypt and specifically Gharbia Governorate. The findings would aid both the staff of the Ministry of education, principals, teachers, educational planners and the entire students.

Several studies were conducted on TQM and other issues like training, capacity building in different places such as Chanda et al (2015) focus on Analysis of TQM in Practices on Zambian secondary school a survey in Lusaka district. This study viewed on TQM in secondary schools in Lusaka Zambia. Lunenberg (2010), while this study focusses on TQM, applied to school which based on a conceptual framework for analyzing TQM in achieving a high standard in schools based on Edwing Deming advocacy. Meanwhile, the Redmond (2008); Toremén and Karakus (2007) they have focused on TQM in Primary school in Turkey which centered on primary teachers. Though, this study focuses on TQM on teacher professional development in secondary in Gharbia Governorate in Egypt. There were limited studies that focus on this direction. The essence of this study is to fill the gap that was not conducted by the previous researchers.

The findings will be useful to the Ministry of Education in particular in understanding the importance of total quality management and teacher professional development through training in secondary schools. This would assist them to revisit the policies on teacher training and development for yielding a positive result. However, the study will benefit principals and school management in designing teacher professional development (i.e. seminars, workshops and external training or study leave) for the betterment of education and attainment of mission and vision of secondary education in Tanta. It will also be useful to the schools' management in the areas of professionalism in total quality management in terms of service delivery in their respective schools, departments under their supervision. It would also aid the teachers in providing them with the literature on the effect of total quality management on teachers' professional development.

## **2. Methodology**

### **2.1. Theoretical Framework**

This study adopted the total quality management theory of Deming principles (1986) which greater management thinker in the quality field was extensively acknowledged in his study. He is of the idea that supports the method of continuous improvement of organization and individuals themselves, with regards to their relationships, products and service and processes. He believes in teamwork and continuous improvement. Deming's work and writing constituted a philosophy of management in the context of total quality management that focuses on quality and continuous improvement with much wider influence (Redmond, Curtis, Noone & Keenan, 2008).

In this current study six out of the fourteen key principles expounded by Deming and modified by Lockwood (1992). Because they were extremely connected to total quality management and teachers' professional development in secondary schools. These encompass 1. Adapt a new philosophy by management learning, 2. Institute training on the job, 3. Institute leadership, 4. Eliminate slogans, exhortations, and targets, 5. Institute a vigorous program of education and self-improvement and 6. Put everybody in the organization to work to accomplish the transformation top management commitment to action. The Deming approach of TQM support on a constancy of purpose to the realities of its environment. Consequently, The TQM framework was adopted by Deming approach is a new philosophy in

explaining customer satisfaction via constant development for the efficient and effective element of the organization and its processes (Sichinsambwe, Mwanza & Nawelwa, 2015).

As hinted by Bonstingl in 1992 said the most important to education quality is the four Pillars of Total Quality Management which is fit with the six principles. The four pillars Self-Evaluation, Continuous improvement, System of ongoing process and Leadership, Synergistic Relationships, and Improvement are four main pillars. Deming (1986) believes that inadequate quality of effective services emanates from difficulties in the process of production. To accomplish quality, one shall eradicate the needs for inspection by building quality into the product (or service) at the initial stage. Even 100 percent inspection does not assure quality. Quality comes from improving the process, not evaluating the output after the fact (Bonser, 1992).

In conclusion, there are some limited studies conducted on the TQM and its effect on professional development in teacher education in Egypt. The goal of this study is to fill the gap that was not been fulfill before and the study indicates that professional capacity building and professional development would ensure efficiency and enhance TQM. This study differs with the above because the bottom line of the study is to ascertain the TQM on teacher professional development in Gharbia Governorate secondary schools, this study is basically on secondary schools' teachers on professional capacity development. This study differs from the previous one.

## **2.2. Population**

The purpose of the study was to investigate the relationship between total quality management and secondary teachers' professional development in Gharbia state in Egypt. Hence, the population of the study comprised of all teachers from secondary schools in Gharbia Governorate. According to the Ministry of Education in Tanta, there are 99 secondary schools and 2,262 teachers who were permanent staff in these secondary schools.

## **2.3. Sample and Sampling Technique**

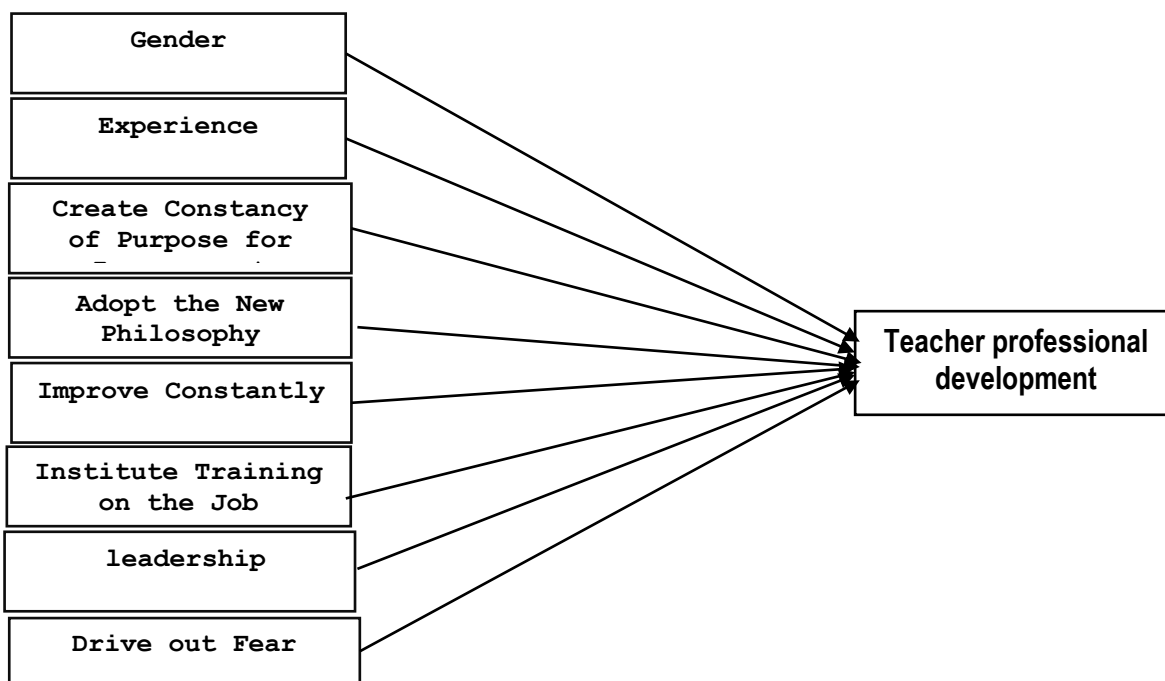
The sample of the study was based on Simple random sampling technique through randomization to guarantee the provision of balanced information. In this study, teachers will be selected from the population of the teachers. Since this research has a fewer sample. Simple random sampling technique will be used to select teachers 100 as a sample for the study.

## **2.4. Instrumentation**

The survey questionnaire was designed in both the Arabic and English language the questionnaire was translated to the Arabic language using the back-to-back method in order to ensure that no changes in meaning happened. First, the questionnaire was written in English and then was translated into Arabic to be easier for the respondents to understand if the questionnaires were posed in the Arabic language and this would motivate them to respond to the survey. The study used Bonstingle (1992) Survey Instrument to collect the data on Total quality management in education regarding teachers' professional development of the secondary school. The essential of this instrument divided to 84 items made by Bonstingle's formulation of Demming's 14 points of Total Quality Management in Education. All the items belong to 14 points are to be evaluated by a five-point Likert scale ranging from (1) Strongly Disagree (2) Disagree (3) Moderate Agree (4) Agree (5) Strongly agree. In the current research, six from Deming fourteen points consisting of 28 items divided into six dimensions were taken because they were extremely connected to professional development (Mukhopadhyay, 2006). They were Create constancy of purpose, Adopt new philosophy, improve constantly, Institute training on the job, Institute leadership and Drive out fear. Consequently, every person will work efficiently and effectively for his or her institution.

## 2.5. Conceptual Framework

Based on the literature and theories, the researcher conceptualized the total quality management to have direct bearing with teacher professional development in secondary schools in Gharbia Governorate. The dimensions for total quality management on teacher professional development are Gender, Experience, Create Constancy of Purpose for Improvement, Adopt the New Philosophy, Improve Constantly, Institute Training on The Job, Institute leadership and Drive out Fear.



**Source 1.1:** *Developed by the Researcher, 2018.*

### 2.5.1. Definition of Terms

The following terms were defined in this thesis as follows:

#### 2.5.2. Total Quality Management:

Total Quality Management (TQM) is a method to encourage the efficiency and dynamism of business in a general context. It is essentially a way of creating and engaging the whole organization; each department, every individual at every level and all activity. TQM is considered as an incorporation of several processes describing the behavioral dynamics of an organization (Lakhe and Mohanty, 1993). The TQM deals with the whole system that the entire process is carried out in attaining customers or beneficiary with competence and efficiency.

Total quality management in education is focused on the requirement of the school administrators, teachers to be effective in teaching and learning process. This would ensure effective and proficient teaching and learning process for yielding a positive outcome.

#### 2.5.3. Teacher Professional Development:

Means teachers' learning, as to do with how the teacher acquired knowledge and how what they acquired is useful in supporting the learning of students. Teacher professional development is the process of training teachers in professional skills to meet up the challenges in their career. This is ongoing and integrating a constructivist approach, based in school and be entrenched in the teachers' work (Pimentel and McNeil, 2013). This encompasses

considering teachers as active learners (McLaughlin and Zarrow, 2001) who are involved in the actual tasks of teaching, observation, evaluation, and reflection (Villegas-Reimers 2003).

**Teachers:** Means a person with a certificate to teach in Secondary school. A teacher is a person who helps others to acquire knowledge, competences or values in either basic educational institution like a primary and secondary school or at the college level.

#### **2.5.4. Secondary School:**

Means a level of education above the primary school. This is the high school above and below-tertiary institutions that help the primary pupil to further their education before they enter into university or polytechnic and college of education.

#### **2.5.5. Gharbia Governorate:**

Means a state in the Republic of Egypt. It is the fifth largest city in Egypt that placed in the north of the country, north of Monufia Governorate, and south of Kafr El Sheikh Governorate. Its capital is Tanta. people residing in the governorate was 4,751.865

### **3. Findings**

#### **3.1.Introduction**

This chapter revealed and report the findings of the study and analysis of instrument conducted. All data were analyzed using a statistical package of social science (SPSS version 22.0). The findings will be presented according to a statistical test that was made. Interpretations of the finding are distributing to two major parts. The first part described the descriptive statistics used for analyzing the demographic characteristics of the respondents which include analysis of frequency and percentages. The second part describes the result of inferential statistics used for hypothesis testing which include T-Test, ANOVA, and Pearson correlation.

#### **3.2. Respondents profile**

This section shows descriptive data that will give an overall description of the results. Findings discussed were gained from the instruments managed by the researcher. Elaborate analysis and testing of hypotheses will be an execution in the statistical analysis section. The current study included 75 secondary school teachers in Gharbia Governorate in Egypt. They were randomly chosen. This descriptive data highlighted and emphasize respondents' profile whence their gender and experiences to determine gender and experiences differences in total quality management and teacher professional development among secondary school teachers in Gharbia Governorate in Egypt.

##### **3.2.1 Respondents' Distribution Based on Gender**

According to table 1 research respondents comprised (N =33) male teachers (47.4 %) and (N =42) female teachers (52.6 %). This presented the frequency of female teachers were more than male teachers.

**Table 1: Respondents' Distribution Based on Gender**

Gender	Frequency	Percentage (%)
Male	33	47.4
Female	42	50.6
Total	75	100

##### **3.2.2 Respondents' Distribution Based on working Experiences**

As shown in the table below 32.9% (N=26) of the respondents had between 6-10 years of working experiences, 25% (N=18) of the respondents had between 1-5 years of working experiences. Also, 22.4 (N=16) of the respondents had between 11-15 years of working experiences and 19.7% (N=17) of the respondents had between 16-20 years of working experiences. The most of the respondents have had between 6-10 years in service.

**Table 2: Respondents' Distribution Based on working Experiences**

Experiences	Frequency	Percentage (%)
1-5	18	25
6-10	26	32.9
11-15	16	22.4
16-20	15	19.7
Total	75	100

### 3.3. Research Findings Based on Research Question and Research Hypotheses

As mentioned earlier, there were three research questions that established eight hypotheses in this current study. Therefore, this section displays the findings of hypotheses testing based on the relevant research question and research hypotheses.

#### *Hypothesis 1:*

**Ho1.** There is no significant difference between genders on teacher professional development in secondary schools in Gharbia Governorate in Egypt.

Hypothesis H1 was tested by using independent T-Test. In the current study, the mean difference and its significant level was set at  $p < .05$ .

Based on table 3 Levene's Test was not significant ( $p > .05$ ). The result shows that there is equally assumed between male and female secondary school teachers on professional development. Therefore, Independent Samples T-Test was statistically not significant ( $t(64) = -1.14, p > .05$ ). This result failed to reject the null hypothesis ( $H_0$ ). There was no significant difference between male and female teachers in professional development. Both male and female secondary school teachers perceived their professional development as almost equal. This statistic confirmed that  $H_{01}$  is accepted.

**Table 3: independent t-test between gender and Teacher professional development.**

Gender	N	Mean	SD	Df	t	p
Male	32	3.94	.35	64	-1.14	.25
Female	34	4.04	.38			

**Ho2.** There is no significant difference between experiences of teacher professional development in secondary schools in Gharbia Governorate in Egypt.

Hypothesis H2 was tested using ANOVA. In the current study, the mean difference and its significant level was set at  $p < .05$ . In order to determine whether there is a significant difference in experiences on professional development based on qualification, one-way ANOVA is conducted.

**Table 4: The Levene's test for homogeneity of variances.**

Levene's Statistic	DF1	DF2	Sig
.192	3	62	.902

**Table 5: the one-way ANOVA between Experiences and Teacher professional development.**

Experiences	N	Mean	Sd	df1	df2	F	P
1-5	17	3.9	.39	3	62	.27	.843
6-10	23	4.05	.39				
11-15	14	4.0	.37				
16-20	12	4.0	.32				

Result in table 4, shows that there is equally assumed between experiences toward teachers' professional development. The one-way ANOVA was not significant  $F(df1(3) df2(62)) = .27, p > .05$ . Between experiences toward teachers' professional development. The result rejected the null hypothesis ( $H_0$ ). In hence, there was no significant difference between

experiences and teachers' professional development. Finally, the post hoc test also was not significant among experiences group.

Hypotheses H<sub>03</sub> to H<sub>08</sub> was tested by using Pearson correlation coefficient. The correlation (r) among the variable will be tested at 0.05 coefficient level of significant.

**H<sub>0 3</sub>.** There is no relationship between Create Constancy of Purpose for Improvement and teacher professional development in Gharbia Governorate in Egypt.

Based on table 5 the finding indicates that the personal correlation was a positively significant relationship between creating constancy of purpose for improvement toward teacher professional development. ( $r = 0.60$ ,  $p < 0.01$ ). High create constancy of purpose for improvement shows high teacher professional development. While low create constancy of purpose for improvement shows low teacher professional development. Hence, according to Wiersma and Jurs (1998), .50 to .70 is a moderate positive relationship between creating constancy of purpose for improvement toward teacher professional development.

**Table 6.** *The relationship between Create Constancy of Purpose for Improvement and Teacher Professional Development.*

Independent variable	Teacher professional development(TPD)
Create Constancy of Purpose for Improvement	.594**

**HO4.** There is no relationship between Adopt the New Philosophy and teacher professional development in Gharbia Governorate in Egypt.

Table 6 shows that there was a positive relationship between adopting the new philosophy, and teacher professional development.  $r = 0.45$ ,  $p < 0.01$ . low adopt the new philosophy shows low teacher professional development. But, high adopt the new philosophy shows high teacher professional development. Therefore, according to Wiersma and Jurs (1998), .30 to .50 is a low positive relationship between adopting the new philosophy toward teacher professional development.

**Table 7.** *The relationship between Adopt the New Philosophy, and teacher professional development.*

Independent variable	Teacher professional development(TPD)
Adopt the New Philosophy	.454**

**H<sub>05</sub>.** There is no relationship between Improve Constantly and teacher professional development in Gharbia Governorate in Egypt.

**Table 8.** *Relationship between Improve Constantly and teacher professional development.*

Independent variable	Teacher professional development(TPD)
Improve Constantly	.643**

According to table 8, the result implies that there was a positive relationship between improve constantly and teacher professional development.  $r = 0.64$ ,  $p < 0.01$ . high improve constantly shows high teacher professional development. While low improve constantly shows low teacher professional development. Therefore, according to Wiersma and Jurs (1998), .50 to .70 is a moderate positive relationship between improve constantly toward teacher professional development.

**H<sub>06</sub>.** There is no relationship between Institute Training on The Job and teacher professional development in Gharbia Governorate in Egypt.

**Table 9.** *The relationship between Institute Training on The Job and teacher professional development.*

Independent variable	Teacher professional development(TPD)
Institute Training	.821**

From table 9, it shows that there was a positive relationship between institute training and teacher professional development.  $r = 0.82$ ,  $p < 0.01$ . high institute training shows high teacher professional development. While low institute training shows low teacher professional development. Thus, based on Wiersma and Jurs (1998), .70 to .90 is a high positive relationship between institute training toward teacher professional development.

**H<sub>07</sub>**. There is no relationship between Institute leadership and teacher professional development in Gharbia Governorate in Egypt.

**Table 10.** *Relationship between Institute leadership and teacher professional development.*

Independent variable	Teacher professional development(TPD)
<i>Institute leadership</i>	.681**

Table 10 displays that there was a positive relationship between institute leadership and teacher professional development.  $r = 0.68$ ,  $p < 0.01$ . Low institute leadership shows low teacher professional development. While high institute leadership shows high teacher professional development. Hence, based on Wiersma and Jurs (1998), .50 to .70 is a moderate positive relationship between institute leadership toward teacher professional development.

**H<sub>08</sub>**. There is no relationship between Drive out Fear and teacher professional development in Gharbia Governorate in Egypt.

**Table 11.** *Relationship between Drive out Fear and teacher professional development.*

Independent variable	Teacher professional development(TPD)
Drive out Fear	.742**

Based on table 11 there was a positive relationship between drive out fear and teacher professional development.  $r = 0.74$ ,  $p < 0.01$ . high drive out fear shows high teacher professional development. While low drive out fear shows low teacher professional development. Therefore, according to Wiersma and Jurs (1998), .70 to .90 is a high positive relationship between drive out fear toward teacher professional development.

The finding implied that the first dimension of the independent variables of the current study used for the analysis supported no significant difference between male and female toward teachers' professional development. in the same time, the second dimension of this study supported no significant difference among teaching experiences toward teacher professional development. in additional, from the third dimension to the eighth dimension has had positively related to teacher professional development. This finding supported that total quality management is tremendously for improve secondary school teachers' professional development in Gharbia Governorate in Egypt.

### 3.4. Dissection of Finding Based on Research Question.

The discussion in this chapter examined the three research questions of the current study. Based on the result of the hypothesis and finding. Also, the findings were compared with similar researches in the literature reviewed.

#### 3.4.1 Gender on teachers' professional development.

There was no difference between male and female teachers in professional development. This study concurred with the finding of Mohamed (2017) which mentioned that found there was no significant difference between male and female on teacher professional development

in Gaza. While Elham (2007) pointed to her study in Jordan on the Effect of TQM in Teacher Professional Development Programs. The study found that there are significant differences on the effect of TQM on gender in planning and practice for women teachers in secondary schools in Jordan.

#### **3.4.2. Experience on teachers' professional development.**

This research finding indicated that there was no difference between experiences and teachers' professional development. Similarly, Mohamed (2017) his study found there are no statistically significant differences at the level of significance between the mean scores of the sample members to the degree of effectiveness of the program and the extent of practicing the skill of time management attributed to a variable (years of service). Conversely, Awad (2003) found the need to reconstitutes the experiences of secondary school teachers and promote their position in educational and psychological fields. It emphasized to increase their knowledge of the subjects and the development of their skills in teaching process through science and technology. In the same time, Imad (2017) found There were significant differences for all the areas of the School-Based Teacher's Continuous Professional Development Programme in improving the teachers' practices in the classroom attributed to the variable of experience in favour of experience (more than ten years) when was compared with the experience (less than five years).

#### **3.4.3. Create Constancy of Purpose for Improvement.**

There was a moderate positive relationship between creating constancy of purpose for improvement toward teachers' professional development. The result supported with Gebhardt, Schwab, Krammer, and Gegenfurtner (2015) prescribed that all teachers were satisfied in their group-work; differences between conventional and special education teachers were non-significant. Elementary teachers had more positive views than secondary school teachers. The study shows the practical relevance for teacher education in classroom settings. Similarly, Davis, Clevenger, Posnock, Robertson, and Ander (2015) Their discovered Post-session scores on between proficient group learning, aptitudes and dispositions were fundamentally higher and a facilitator improvement course and investment in the showing occasion positively affected apparent information, abilities and states of mind toward between proficient cooperation. Also, Nawelwa, Sichinsambwe, and Mwanza (2015) their study showed the role of teamwork to attain the goals of the institutions. The teachers working together as a team in secondary schools in Zambia is the best strategy to coordinate work and promote quality management in these schools. Indeed, the group work is considered the way out than individual services, most of the teachers believed that teamwork would ensure efficiency and effectiveness in schools.

#### **3.4.4. Adopt the New Philosophy of TQM.**

The result indicated that there was a low positive relationship between adopt the new philosophy and teachers' professional development. This study is in not support of past research by Aggarwal (2016) which show that the relevance of TQM in teacher education. He pointed that provision of good infrastructural facilities in education (classrooms, library, laboratories, and instructional materials to learners) and effective teaching and learning process are the vital instrument on enhancing quality in education. Likewise, Thokozile and Magwaza (2007) The outcomes of the study showed that educators with a positive view of TQM principles were more likely to apply them in their teaching situations, knowing that the student is the significant to the client who needs to gain acceptable knowledge within the context of learning.

#### **3.4.5. Improve Constantly.**

Based on the finding of this research the result implied that There was a moderate positive relationship between improve constantly and teachers' professional development. The finding support with (Bany et al,2015) they found showed that the degree of implementation of continuous improvement is averaged and that the Jordanian universities

that applied for a certificate of quality assurance standards are used to ensure quality issued by the Higher Education Accreditation of Jordan as the main method. And that the main drivers of continuous improvement are: to improve departmental image or prestige, to improve product or service quality, and to become more competitive. But this finding is opposed the finding of Nawelwa, Sichinsambwe, and Mwanza, (2015) The study found that provision of instructional materials and counseling strategies to the pupils does not improve the educational performance as well as inadequate of instructional materials would also deter some schools to achieve their basic objectives.

#### **3.4.6. Institute Training on the Job.**

This result shows that there was a high positive relationship between institute training and teachers' professional development. The finding consistent with Hardman, Frank, Jan Hardman, Hillary Dachi, Louise Elliott, Noel Ihebuzor, Maniza - Ntekim and Audax Tibuhinda (2015) They found that teachers who had participated in the school-based training showed significant differences in their pedagogical practices and demonstrated a positive attitude towards their training and their pupils, and saw teaching and learning as an interactive, communicative process. Also Omoogun and Omoogun, (2013) in the line with the current. They found that teachers prefer workshop as a model of professional development to enable them to implement EE curriculum. Also, conformed to Popham (2010) his found that training must be adequately offered in the use of new valuation strategies and provision for the continuous professional development programs for all school administrators, teachers, and axillary staff would aid the school in meeting its objectives. Similarly, with Reda (2006) his study indicated that the school training program unit (STU) should be put in place in the schools towards boosting the professional development and enhancing total quality management in the school. The teachers need should be identified and teachers really participate in choosing trainers and subjects.

#### **3.4.7. Institute leadership**

With correlation analysis conducted in the current study. The result revealed that There was a moderate positive relationship between institute leadership and teachers' professional development. The study concurs with Alan, Mohamed and Hasan (2012) they study disclosed that the role of public secondary school principals was high in all fields of study. It reveals that there is no significant differences in gender, years of experience and school location. While there is significant dichotomy due to specialization and academic qualification and experience. Though, the absence of material and moral incentives is the threat to professional teacher's development in Ghaza, which requires funding and provision of instructional materials for their professional development. Similarly, with Elham (2014) her study found that there was high positively degree of the principal's practice as a resident supervisor for his role in the professional development. Also, in the line with Bredeson (2000), he found the principals of the schools concurred that the success of school development is hinged on teacher professional development. Furthermore, the study conformed with Amal (2004) her study found there was a positive relationship between principals' leadership and teachers professional development.

#### **3.4.8. Drive out Fear.**

Based on the finding of this research the result indicated that There was a high positive relationship between drive out fear and teachers' professional development. The finding support with Deming (1986) suggested that If the aim in education is to promote academic freedom, to create an appropriate working environment and advancing productivity, management initiatives that address concerns in the workplace and the potential consequences employees may face from talking about these concerns is a positive step for everyone to work effectively to achieve organizational goals. On the other hand, the current study on contrary with Pfeffer and Sutton (2000) emphasizes that the fear brings about an attention on the short

run driving out the attention of the long run. Furthermore, the fear creates a focus on the person rather than in a punitive culture.

#### **4. Conclusion**

This study was an effort to examine the difference between gender and experience among secondary school teacher on teacher professional development in Al Gharbia in Egypt and this study found no difference between male and female toward teacher professional development. In the same time, no experience difference on teacher professional development. Which means that all teachers have the same interest in professional development to improve their self-efficacy. In addition, this study aimed to determine the relationship between the six dimensions of total quality management on teacher professional development in Al Gharbia in Egypt and the current study implies that had positively related to teachers' professional development.

Total Quality Management in education has a significant role towards enhancing the standard of education in providing skilled and professional teachers. In the same time, teachers' professional development is one of the fundamental factors determining an institution success in meeting the student, parents, community, and stakeholder. Finally, the teacher must be prepared for high professional level for this critical stage of education.

#### **4.1. Recommendations**

From the result of the study, the researcher found there was no difference in terms of gender and years of teaching experience. In additional, the relationship among Create Constancy of Purpose for Improvement, Adopt the New Philosophy, Improve Constantly, Institute Training on the Job, Institute leadership and Drive out Fear had positively related each other, the researcher tried to proposition the following basic recommendation. First, continuing and supporting training programs in secondary schools which aimed to help teachers improve their competencies and abilities in order to improve their performance and practices within the classroom.

Second, make a study that is similar to the current study in other stages of the study, such as primary and middle schools in Egypt. Furthermore, conduct similar studies for this study to measure other variables like age, educational qualification, and material status.

Third, encourage teachers of the secondary school to attend a training course and learn recent research and educational studies by providing financial and moral incentives. On the other hand, seminars could be held for high school teachers in order to improve their attitudes and perspectives towards professional development.

Fourth, continuous training for leadership and staff of the school, that is because the professional development is an effective tool for building a clear understanding and creative expertise that helps in doing perform more effectively.

Fifth, creating a satisfactory social relationship between faculty and school leadership away from tyranny, authoritarianism, and dictatorship. In additional, Selecting the school leadership of the qualifications and experiences of high efficiency under specific conditions. Also, school leadership should respect teachers point of view while making discussion, decision-making also, should be done in a participant with all staff, emphasize the importance of holding courses to discussing the modern teaching methods.

Finally, develop regulations for the promotion of teachers on the basis of achievement, creativity, experience, and liberality in the profession.

#### **5. Reference**

- Abo Elnasr & Kamal. (2014). *Education Egypt National Project – Unesco*. Retrieved from [www.unesco.org/education/.../c33b72f4c03c58424c5ff258cc6aeae0eb58de4.pdf](http://www.unesco.org/education/.../c33b72f4c03c58424c5ff258cc6aeae0eb58de4.pdf)
- Aggarwal, P. (2016). Total quality management and teacher education. *International Journal of Applied Research* 2016; 2(1): 600-601

- Altunay, E. (2014). The Effect of Training with TQM on the Perceptions of Teachers about the Quality of Schools. *Universal Journal of Educational Research* 4(9): 2126-2133, 2016
- Avalos, B. (2011). Teacher professional development in teaching and teacher education over ten years. *Teaching and teacher education*, 27(1), 10-20.
- Awad, A (2003). *Teacher professional development in secondary school*. The national centre for Educational Research and Development, Ceiro.
- Aydin, F., Senturk, N., Sahin, B., Bek, Y., Yuksel, E. P., & Turanli, A. Y. (2007). A practical method for the estimation of vitiligo surface area: a comparison between the point counting and digital planimetry techniques. *European Journal of Dermatology*, 17(1), 30-32.
- Bonser, C. F. (1992). Total quality education? *Public Administration Review*, 504-512.
- Bonstingl, J. J. (1992). *Schools of Quality: An Introduction to Total Quality Management in Education*. Association for Supervision and Curriculum Development, 1250 North Pitt Street, Alexandria, VA 22314 (Stock No. 611-92152, \$14.95).
- Bostan, F. (2005). The assessment of the total quality management practice at the boarding region schools of primary education. *Unpublished Master's Thesis, Adana: Cukurova University*.
- Bowman, B., Donovan, M. S., & Burns, S. (Eds.). (2000). *Eager to learn: Educating our preschoolers*. Washington, DC: National Academy Press. Retrieved from <http://books.nap.edu/books/0309068363/html/261.html>
- Bredeson, P. V. (2000). The school principal's role in teacher professional development. *Journal of in-service education*, 26(2), 385-401.
- Capezio, P., & Morehouse, D. L. (1997). *Secrets of breakthrough leadership*. Career Press.
- Chin, W. W. & Newsted, P. R. 1999. "Structural Equation Modeling Analysis with Small Samples Using Partial Least Squares." *In Statistical Strategies for Small Sample Research*. Ed. R. H. Hoyle. Thousand Oaks: Sage, 307-341.
- Creswell, J. W. (2014). *Research Design, Qualitative, Quantitative, and Mixed Methods*
- Cronbach, L. (1951). Coefficient alpha and the internal structure of tests *Psychometrika*. 16(3), 297-334.
- Darling-Hammond, L. (2006). Constructing 21st-century teacher education. *Journal of teacher education*, 57(3), 300-314.
- Davis, B. P., Clevenger, C. K., Posnock, S., Robertson, B. D., & Ander, D. S. (2015). Teaching the teachers: faculty development in inter-professional education. *Applied Nursing Research*, 28(1), 31-35.
- Dean Jr, J. W., & Bowen, D. E. (1994). Management theory and total quality: improving research and practice through theory development. *Academy of management review*, 19(3), 392-418.
- Deming, W. E. (1986). *Out of the crisis*. Massachusetts Institute of Technology. *Center for advanced engineering study, Cambridge, MA*, 510.
- Elazab, A (2004). *Develop the professional development of the teacher primary school teacher in the light of contemporary global trends*. A thesis in Education (PHD Thesis). Ain Shams University, College of Women for Arts, Science and Education.
- Elshalabey, E (2007). The Effect of TQM in Teacher Professional Development Programmes (The Experiment of UNRWA – Jordan). *Journal of Damascus University*, 4.
- Emery, H. (2012). *A global study of primary English teachers' qualifications, training, and career development* (ELT Research Paper 12-08). London: British Council. Retrieved from [https://www.teachingenglish.org.uk/sites/teacheng/files/B487\\_ELTRP\\_Emery\\_ResearchPaper\\_FINAL\\_web\\_V2.pdf](https://www.teachingenglish.org.uk/sites/teacheng/files/B487_ELTRP_Emery_ResearchPaper_FINAL_web_V2.pdf)
- Gadekar, S.D. and Patil, B. (2014). Total Quality Management (Tqm) For Teacher Training Colleges. *Research Front Special Issue No. 1*. Pp. 319-322.

- Gebhardt, M., Schwab, S., Krammer, M., & Gegenfurtner, A. (2015). General and special education teachers' perceptions of teamwork in inclusive classrooms at elementary and secondary schools. *Journal for Educational Research Online*, 7(2), 129.
- Hardman, F., Hardman, J., Dachi, H., Elliott, L., Ihebuzor, N., Ntekim, M., & Tibuhinda, A. (2015). Implementing school-based teacher development in Tanzania. *Professional development in education*, 41(4), 602-623.
- Hargreaves, D. (2003). Education epidemic. London: Demos. (pp.36).
- Heifetz, R. (2003). Adaptive work. In T. Bentley J. Wilsdon (Eds.), *The adaptive state* (pp. 68—78). London: Demos.
- Hertzog, M. A. (2008). Considerations in determining sample size for pilot studies. *Research in nursing & health*, 31(2), 180-191.
- Hinkle, D. E., Wiersma, W., & Jurs, S. G. (1998). Correlation: a measure of relationship. *Applied statistics for the behavioral sciences*, 4, 105-131.
- <https://www.nuffic.nl/en/publications/find-a-publication/education-system-egypt.pdf>
- Johnson, C. C., & Marx, S. (2009). Transformative professional development: A model for urban science education reform. *Journal of Science Teacher Education*, 20(2), 113-134.
- Lai-Yeung, S. W. C. (2014). The need for guidance and counselling training for teachers. *Procedia-Social and Behavioral Sciences*, 113, 36-43.
- Lakhe, R. R., & Mohanty, R. P. (1994). Understanding TQM. *Production planning & control*, 5(5), 426-441.
- Lefstein, A., & Snell, J. (2013). Better than best practice: *Developing teaching and learning through dialogue*. Routledge.
- Lloyd et al, (2013) The Impact of Educational Quality on School Exit in Egypt. *Comparative Education Review*, vol. 47, no. 4. Pp. 444-467.
- Lockwood, A. T. (1992). What do we do to improve? *Focus in Change*, 1 (8), 2-7.
- Lunenburg, F. C., & Fred, C. (2010). Total quality management applied to schools. *Schooling*, 1(1), 1-6.
- Lunenburg, F. C., & Fred, C. (2010). Total quality management applied to schools. *Schooling*, 1(1), 1-6.
- Magwaza, L. T. (2007). *Educators' views on total quality management in secondary schools in Eshowe circuit* (Doctoral dissertation, University of Zululand).
- McLaughlin, M. W., & Zarrow, J. O. E. L. (2001). Teachers engaged in evidence-based reform: Trajectories of teachers' inquiry, analysis, and action. *Teachers caught in the action: Professional development that matters*, 79-101.
- Megahed, N. (2002). Secondary education reforms in Egypt: rectifying inequality of educational and employment opportunities. *Secondary Education Reform Case Studies*. Washington, DC: American Institutes for Research (USAID-funded Improving Educational Quality Project), 44-71.
- Megahed, N. (2016). Quality Education for All in Egypt: "Post 2015 Education Development Goal" Case Studies. The American University in Cairo Graduate School of Education.
- Middle East and North Africa (MENA) & Organization for Economic Cooperation and Development (OECD). (2010). Business climate development strategy: Phase 1 policy assessment, Egypt, human capital. Retrieved from <http://www.scribd.com/doc/46727327/Competitiveness-and-Private-SectorDevelopment-Egypt-2010-2510041e>
- Ministry of Education in collaboration with UNESCO (2003), the National Plan for Education for All, 2002/2003 - 2015/2016, Cairo.
- Nawelwa, J., Sichinsambwe, C., & Mwanza, B. G. (2015). An analysis of total quality management (TQM) practices in Zambian secondary schools: A survey of Lusaka district. *The TQM Journal*, 27(6), 716-731.

- Nuffic. (2015). The Egyptian education system described and compared with the Dutch system Retrieved from
- OECD. (2005). *Teachers matter. Attracting, developing, and retaining effective teachers.*
- Omoogun, A. C., & Omoogun, R. M. (2013). Inservice Training Programme Preference of Teachers in the Multidisciplinary Approach of Implementing Environmental Education. *Journal of Studies in Education*, 3(2), 255-263.
- Organization for Economic Cooperation and Development (OECD). (2005). *Teachers matter: Attracting, developing and retaining effective teachers.*
- Ouma, Ruth Achieng (2012). School factors influencing implementation of school-based teacher development programme in public primary schools in Makadara District, Nairobi County, Kenya
- Ozevren, M. (2000). Toplam Kalite Yönetimi: Temel Kavramlar ve Uygulamalar (TQM: Basic Concepts and Practices). *Alfa Yayınları, Istanbul.*
- Pandi, A. P., Rao, U. S., & Jeyathilagar, D. (2009). A study on integrated total quality management practice in technical institutions—stakeholders' perspective. *International Journal of Management in Education*, 3(3-4), 416-428.
- Peters, J. (1999). Human resources-Why we need to bring TQM and HR development together. *Quality World*, 25(8), 10-13.
- Pfeffer, J., & Sutton, R. I. (2000). *The Knowing-Doing Gap* Boston. MA: Harvard Busi. (124-126).
- Pimentel, D. S., & McNEILL, K. L. (2013). Conducting talk in secondary science classrooms: Investigating instructional moves and teachers' beliefs. *Science Education*, 97(3), 367-394.
- Popham, W. J. (2010). Educational assessment: What school leaders need to know.
- Rampa, S. H. (2004). The relationship between total quality management and school improvement (Doctoral dissertation, University of Pretoria).
- Redmond, R., Curtis, E., Noone, T., & Keenan, P. (2008). Quality in higher education: The contribution of Edward Deming's principles. *International Journal of Educational Management*, 22(5), 432-441.
- Safi, S. (2015). In-service Training Programs for Schools Teachers in Afghanistan: Teachers' Views about effectiveness of the In-service training.
- Saiad, A (2009). *Teacher professional development programs in light of the overall quality standards* A thesis in Education (master's Thesis). Ain Shams University, College of Women for Arts, Science and Education.
- Sallis, E. (2005). *Total Quality Management in Education*. London: Taylor & Francis e-Library Publisher.
- Sallis, E. (2014). *Total quality management in education*. Routledge.
- Sekaran, U. (2007). *Research methods for business: a skill building approach*. Fourth Edition, Wiley India.
- Sichinsambwe, C., Mwanza, B., & Nawelwa, J. (2015). An analysis of total quality management (TQM) practices in Zambian secondary schools: a survey of Lusaka District.
- Spagnol, G. S., Min, L. L., & Newbold, D. (2013). Lean principles in Healthcare: an overview of challenges and improvements. *IFAC Proceedings Volumes*, 46(24), 229-234.
- Taggar, S., & Ellis, R. (2007). The role of leaders in shaping formal team norms. *The Leadership Quarterly*, 18(2), 105-120.
- Temel.A. (1999). Total quality management in education. *The Journal of National Education*, 44, 48-50.
- Timperley, H., Wilson, A., Barrar, H., & Fung, I. (2008). Teacher professional learning and development.
- Töremen, F., Karakuş, M., & Yasan, T. (2009). Total quality management practices in Turkish primary schools. *Quality assurance in Education*, 17(1), 30-44.

- USAID. (2010) *Building educational quality through classroom, schools, and communities*. Retrieved from <http://www.equip123/docs/eq1.broch.pdf>
- Van Driel, J. H., Beijaard, D., & Verloop, N. (2001). Professional development and reform in science education: The role of teachers' practical knowledge. *Journal of research in science teaching*, 38(2), 137-158.
- Villegas-Reimers, E. (2003). *Teacher professional development: an international review of the literature*. Paris: International Institute for Educational Planning.
- Vlašić, S., Vale, S and Puhar, K.D. (2009). Quality Management in Education. *Interdisciplinary Management Research V* Pp.565-573.
- Vygotsky, L. S. (2000). Mind and society: The development of higher mental processes. 1978. Zemke, Ron, Claire Raines, and Bob Filipczak. *Generations at work: Managing the clash of Veterans, Boomers, Xers, and Nexters in your workplace*. AMACOM Div American Mgmt Assn.
- Webster-Wright, A. (2009). Reframing professional development through understanding authentic professional learning. *Review of educational research*, 79(2), 702-739.
- WestEd (Ed.). (2000). *Teachers who learn, kids who achieve: A look at schools with model professional development*. WestEd.
- Yenel, T.I.F. Çolakoğlu, İ. Demir, (2008). A study on the administrators' opinions about applicability of TQM in the secondary schools). *The Journal of Niğde University Physical Education and Sport Science*, Vol:2, 111-120
- Zikmund, W. G. (2003). *Essentials of marketing research* (2nd ed.). Sydney: Thomson Learning.